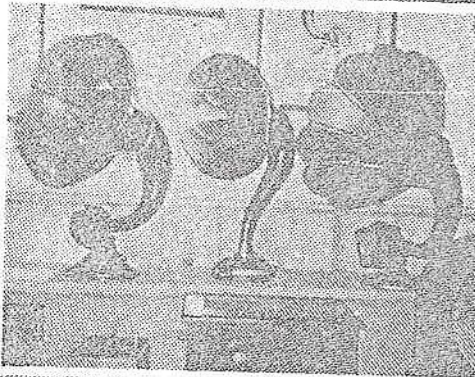
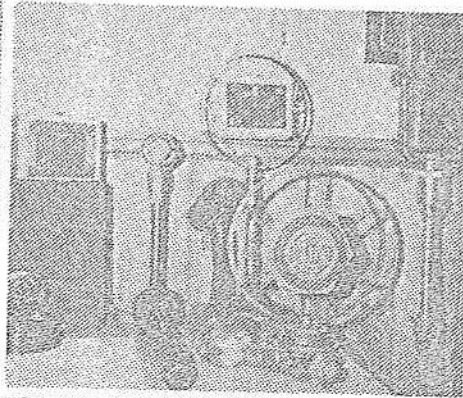
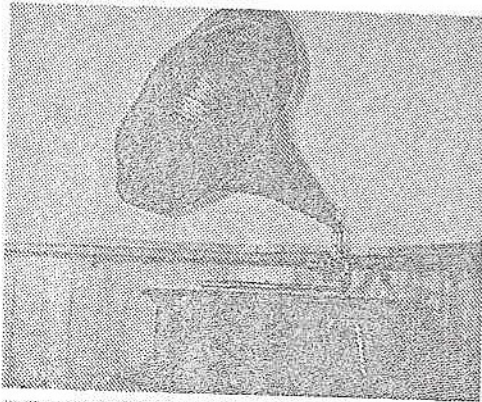


Jan 1992

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B·A·R·G NEWS



© Monthly Newsletter of the
Ballarat Amateur Radio Group

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PRESIDENT	Tom George	VK3DMK	355662	327234
IMM PAST PRESIDENT	Ian McDonald	VK3AXH		311317
VICE PRESIDENT	Ian Robinson	VK3BTX	315911	358031
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TECHNICAL OFFICER	Dick Antoziewicz	VK3AEX	323273	311818
MEMBERS REP	Mary Curnow	VK3FMC	301927	
	Reg Carter	VK3CAZ	417585	

OFFICERS AND COMMITTEES

QSL MANAGER	Jeff Pigdon	VK3PAP	327041	311211
AWARDS MANAGER	Maurie Batt	VK3XEX	422245	
PROPERTY OFFICER	Dick Antoziewicz	VK3AEX	323273	311818
HAMFEST CONVENER	Kevin Hughes	VK3WN	355011	
WICEN COMMITTEE	Gordon Cornell	VK3KGC	392427	391135
	Geoff Smith	VK3ADB	332112	
	Tom George	VK3DMK	355662	327234
TECHNICAL COMMITTEE	Ian McDonald	VK3AXH		311317
	Dick Forrester	VK3VU	357663	391001
	Merv Hooley	VK3KAW		311317
	David McConnell	VK3YNB		
NEWSLETTER EDITORS	Bob Terrill	VK3BNC	395317	391001
	Harry Hekkema	VK3KGL	357563	391001

REPEATERS: VK3RBA - 146.750 Voice. Mt. Buninyong. (Ch.3)
 VK3RBS - 146.900 Voice. Smeaton Hill. (Ch.6)
 VK3RPC - 147.600 Packet. Mt. Warrenheip
 VK3RBU - 438.475 Voice. Smeaton Hill

CLUB NET: On 3.5610 Mhz. SSB +/- QRM.
 Every Thursday at 8 PM.

MEETINGS: Held every last Friday of
 month at 7.30 PM. in the
 Ballarat Community Education Centre.
 Hopetoun St.
 Ballarat.

CORRESPONDENCE TO: THE SECRETARY,
 BARG Inc
 P.O. BOX 216E
 BALLARAT EAST 3350.

FOX HUNT:
 Mondays at 7.30 p.m. 146.500 MHz
 Meet at Education Centre, Hopetoun St.

2M, SCRAMBLE:
 Sunday Nights at 7.45 p.m.

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PRESIDENT'S REPORT

Well we are into the start of the new year and already the Club has been active.

As you will see in the following pages, the Australian Jamboree has been, and BARG supplied a station on Mt. Beckworth. Also a number of our members helped to operate VK3SBJ, the Jamboree station. Thanks to those who helped at VK3SBJ and VK3BML. VK3BML operated in the evenings as an outdoor activity and from reports it was very well received by the scouts participating. VK3SBJ was active during the day and evenings and was also a popular site for scouts and visitors during the week.

BARG hopes to be running an Exam during February so those wishing to upgrade their licence or get Regulations out of the way early, let us know soon.

We will also be running a NAACP Theory class with BRACE early this year and participants are urged to apply ASAP.

Also for consideration is the John Moyle Field Day to be held mid March, a great chance to set up and operate a field station under contest rules. This is also an opportunity for our prospective amateurs to operate with the BARG callsign and experience 'on air' operating.

I received some more Scramble sheets last meeting and the updated results are printed below. If you are taking part in the scramble and haven't submitted a log, then you won't appear in the list below. Everyone is welcome to participate in the scramble which is held every Sunday night at 19.50 local. An announcement is made on VK3RBA 146.750 repeater about 10 mins. before the event which is conducted between 146.425 MHz and 146.000 MHz inclusive for a 10 minute period. A callback is then held on VK3RBA to see who was on air and the relative scores for the night. The scramble is open to all amateurs, members and non-members of BARG.

I would also like to welcome Norm, one of our prospective amateurs, to the job of editor of the newsletter, and hope that he will receive support from all members in acquiring articles for publication. Thanks must go to Bob VK3BNC and Harry VK3KGL for a job well done on previous editions.

See you all at the meeting

TOM VK3DMK...

=====

SCRAMBLE RESULTS UPDATE

=====

VK3KAY	232
VK3DCS	176
VK3VEJ	172
VK3FMC	153
VK3DOK	131
VK3CIS	94
VK3JAT	83

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MINUTES OF GENERAL MEETING HELD 29th NOVEMBER 1991.MEETING OPENED by President Tom VK3 DMK at 7.50pm with 43 members present.APOLOGIES VK3 AXH, AEX, KIT, BNC.MINUTES of previous meeting as circulated were confirmed. CAZ/XDQ.CORRESPONDENCE IN Ballarat Courier requesting communications for Fun Run.
Midland ARC notice of Convention to be held 22.3.92.CORRESPONDENCE OUT WIA ordering International and American CallBooks.TREASURERS REPORT General a/c \$303.50. VS&L a/c \$5094.70.
Accounts for \$118.53 passed for payment. KGL/YMW.CLUB NET John CFH reported that the net is being well supported and a few interstate stations have been calling in.HAMVENTION Kevin WN presented the balance sheet for the 1991 Hamvention, the weekend was an outstanding success both socially and financially and a minute of thanks to Kevin for all his work was passed with acclamation..EDUCATION. The first examinations under the auspices of the WIA have been held without any problems.NEWSLETTER Changes in the printing of the Newsletter have become necessary and a new editor has been appointed, more information next month.GENERAL BUSINESS.

A station using the Club call BML will be operating from MT.Beckworth during the Jamboree 4th to 10th of January and Club operators will be assisting at Victoria Park station.

MEETING CLOSED at 8.30pm and a supper of Pies and Pasties enjoyed while President Tom demonstrated his Packet Radio station.

#####

NEXT BARG MEETING 31st January at Education Centre. 7.30pm.

#####



ACTIVE AUDIO FILTER by VK3ESM

This simple circuit restricts the audio passband to between 300Hz and 3kHz, which is the range normally associated with human speech. Fitting this to the output of your rig should reduce noise, and result in a clearer, more easily understood signal.

There are two separate parts, a bandpass filter, and a power supply to provide dual voltages for the op-amp. The bandpass filter consists of a second order low pass Butterworth filter, followed by a second order high pass section. The gain slope is 40 dB/decade outside the cut-off points. It has a high input impedance, and a low output impedance so a speaker can be driven directly. The power supply section consists of a 555 operating in the astable mode to drive a diode charge-pump configuration providing a negative output voltage.

The cut-off frequencies for the filter are given by $f = \frac{1}{2\pi RC}$

where f is in Hertz, R is in Ohms, C is in Farads and $\pi = 3.14159$

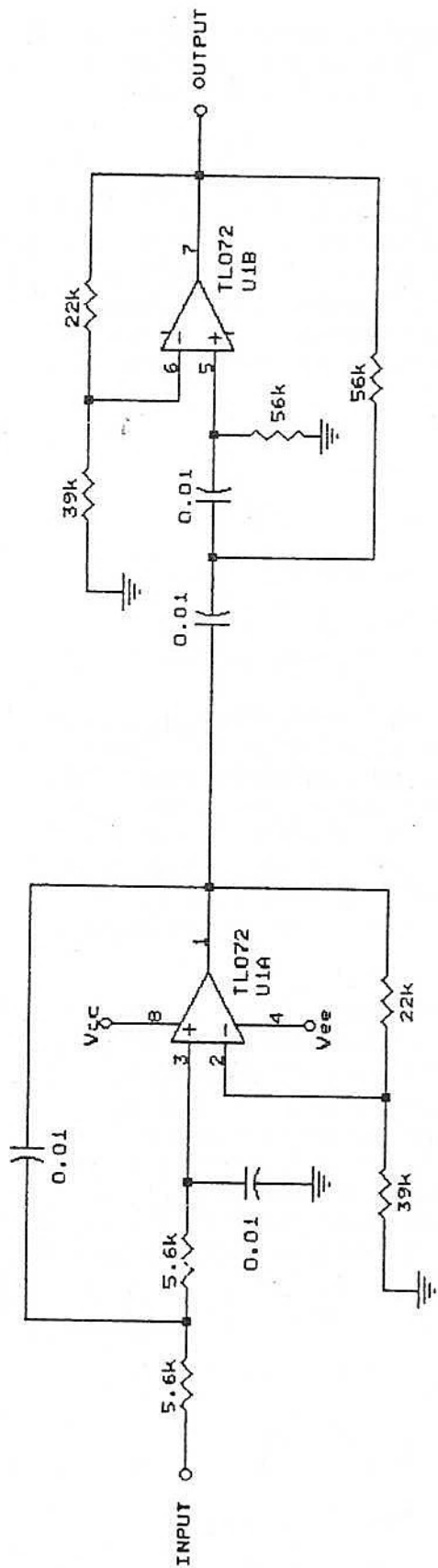
For the lower breakpoint, $C = 0.01\mu\text{F}$, $R = 56\text{k}\Omega$, and so $f = 284\text{Hz}$ similarly for the upper point, $C = 0.01\mu\text{F}$, $R = 5\text{k}\Omega$, and so $f = 2840\text{Hz}$.

The capacitor values do not need to be the same, but were chosen simply because it is a common value, and you should have a few handy. These values can be altered to suit, but do not alter the feedback resistors since the bandpass gain cannot be altered. The damping ratio for both stages is fixed at 0.707 since the poles for a Butterworth filter lie on a circle centred at the origin. This means the gain for each stage is fixed at 1.59 (or 4dB). Because of this the $22\text{k}\Omega$ and $39\text{k}\Omega$ resistors in the feedback loops should not be altered. Doing so will affect the maximally flat passband response.

The method of construction is not critical, although a printed circuit board was designed for the prototype and will be made available to anybody who is interested. It measures 35x47mm. Performance of this circuit is very good, but it may be improved by adding further stages. Simply reproduce the given circuit and cascade the two together. This will still give a 300Hz to 3kHz bandwidth, but the out of band rejection will now be 80dB/decade (20dB/decade/pole). Alternatively, just one stage could be added, giving say, a lower slope of 60dB/decade whilst leaving the upper slope at 40dB/decade. This could be achieved by using a TL074 op-amp which is a quad device, or two TL072's could be used.

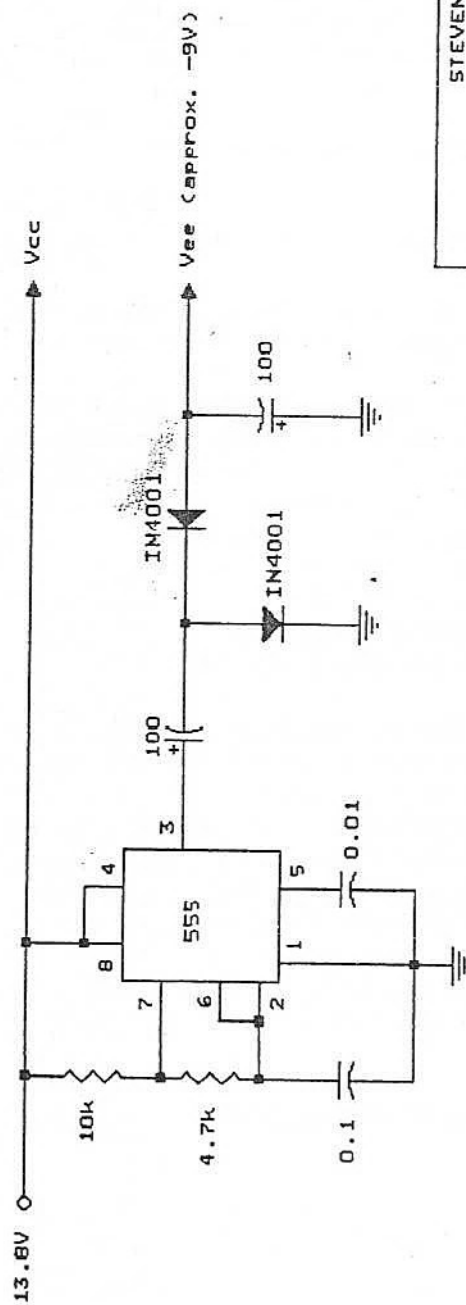
73 de Steve VK3ESM

See Circuit over page ...



Low Pass Filter (below 3kHz)

High Pass Filter (above 300Hz)



STEVEN J. MERRIFIELD

Title

AUDIO BANDPASS FILTER

Size Document Number

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BARGFILT.DWG

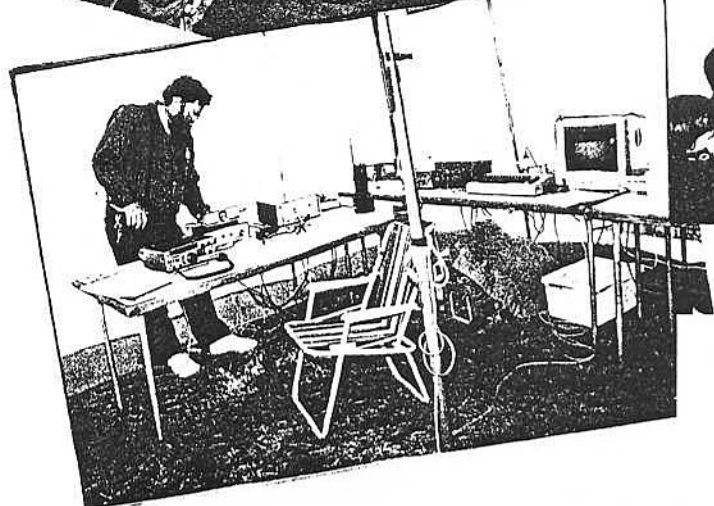
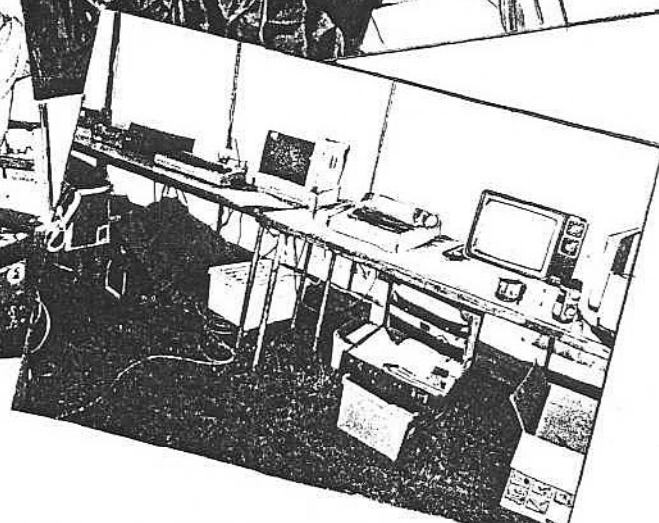
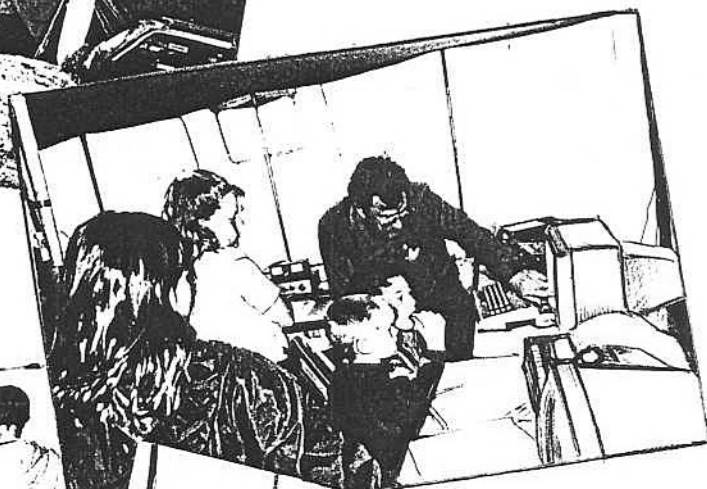
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Date: December 15, 1991 Sheet 1 of 1



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6 NIGHTS ON THE AIR
MT. BECKWORTH

9

WANTED KNOWN



B. R. A. C. E. NOVICE COURSE.

The B. R. A. C. E. Novice Amateur Radio Theory and Regs. Course will commence on February 20th. 1992 at B. R. A. C. E.

If you are interested in participating, please contact VK3AXH (Ian Mc. Donald) as soon as possible, as enrolments close on the 13th. February. The course is held on Thursday nights and is of 18 weeks duration.

EXAMINATIONS.

It is possible that a set of examinations will be conducted during February. If you are interested please contact Tom. VK3 DMK as soon as possible.

"NEWS LINKS" (A. R. G.)

'News Links' advise the operation of two new 70cm. voice repeaters and invite all Amateurs to use them and gain full benefit of the service. Details of the repeaters are as follows:

Repeater No. 1. CALL SIGN - VK3 REO Approx. Location-Clarkfield.

Expected Coverage - Melbourne Metro., Mornington to Portsea (base station), Cranbourne, Melbourne to Geelong, Kilmore, Melton, Bacchus Marsh.

Repeater output frequency - 438.700 MHz.

Repeater input frequency - 433.700 MHz.

Repeater input C. T. C. S. S. - 123 Hz. P/C link to 3RRM in future.

Repeater No. 2. CALL SIGN - VK3 RRM Approx. Location-Bullengarook

Expected Coverage - Melbourne Metro., Ballarat, Bendigo, Daylesford, Kyneton, Mornington to Portsea, Cranbourne, Melbourne to Geelong, Kilmore, Heathcote, Castlemaine, Western District.

Repeater output frequency - 439.325 MHz.

Repeater input frequency - 434.325 MHz.

For more information contact The Secretary (VK3CTT)

NEWS LINKS (A. R. G.)

P. O. BOX 423

ST. ALBANS 3021.

'HAMFEST' - MOORABIN & DISTRICT RADIO CLUB.

The Moorabin & District Radio Club 'Hamfest' will be held on Saturday the 2nd. May 1992 from 10.00 a.m. to 3.30 p.m.

The venue is the BRENTWOOD SECONDARY SCHOOL (formerly Brentwood High School) at HEATH ST. GLEN WAVERLEY.

(Melways ref.: Map 71 - D7.)

The usual attractions will be there. Commercial and Amateur Trade Displays and Pre-loved equipment etc.

Enquiries are most welcome - Contact Trevor Armstrong: 03-557 6817 or on Packet: VK3 APC @ VK3 YZW.



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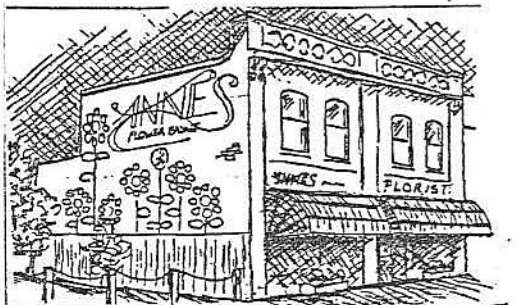
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